

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WSG 120

Date Signed: April 17, 1998

MEMORANDUM

SUBJECT: The Data Sharing Committee's Review of the Surface Water Treatment Rule Data Needs and Safe Drinking Water Information System (SDWIS) Reporting Requirements

FROM: Cynthia C. Dougherty, Director
Office of Ground Water and Drinking Water

TO: Addressees

The Data Sharing Committee has completed its review of the data needs and reporting requirements for the Surface Water Treatment Rule (SWTR). The Committee recommends that one reporting requirement (filtration requirement determination records) be deleted. The Committee further recommends that one reporting requirement (new violation type to track systems that fail to meet filtration installation deadlines) be added and one reporting requirement (violation duration for treatment technique violations) be modified. The Association of State Drinking Water Administrators (ASDWA)/EPA Data Management Steering Committee and all states and regions reviewed these recommendations. The ASDWA/EPA committee concurred with the recommendations and no state or region raised objections. I also agree with the recommendations and am sending this memo to officially notify you of this change in the reporting requirements.

The deletion of the filtration requirement determination record reporting requirement is effective immediately. Since the other changes that are being made are preferred by many states, the revised reporting will be allowed as soon as SDWIS/FED can be modified to accept the new data, and will be required no later than December 1999. Until these new requirements become effective, the current reporting requirements must, at a minimum, continue to be reported.

Thanks to everyone who participated in this effort, especially those states and regions that served directly on the Data Sharing Committee. If you have any further questions on this issue, please contact me at 202-260-5543, or Jan Auerbach at 202-260-5274. You may also wish to contact Tom Poleck, who prepared the report, at 312-886-2407.

Attachment A is a fact sheet summarizing the changes. Attachment B is the detailed technical guidance providing the specific reporting requirements. A report providing the detail supporting the committee's recommendations can be obtained from Tom Poleck.

Attachments

Addressees: State Drinking Water Administrators
Regional Drinking Water Program Managers/Coordinators
Regional Drinking Water Enforcement Managers/Coordinators

cc: Data Sharing Committee
ASDWA/EPA Data Management Steering Committee
Robert Blanco, OGWDW
Jan Auerbach, OGWDW
Vanessa Leiby, ASDWA

United States
Environmental Protection
Agency

Office of Water 4601

EPA 670/9-91-300 January 1995

Surface Water Treatment Rule

FACT SHEET

The Surface Water Treatment Rule (SWTR) was published in the Federal Register on June 29, 1989. It became effective on December 31, 1990. This rule requires water treatment in lieu of water testing because it regulates contaminants which are difficult to detect and pose acute health risks.

Under this rule, disinfection is required for surface water systems and for groundwater systems under the direct influence (UDI) of surface water. These systems must also install filtration if the microbiological, turbidity and other criteria for avoiding filtration in this rule are not met. All surface water systems must disinfect.

Water Quality Standards

Maximum Contaminant Level Goals (MCLGs): Zero

Water systems should try to produce water which is free of the microbial contaminants given in Table 1. These are non-enforceable goals.

Table 1. Standards	
Contaminant	MCLG
<i>Giardia lamblia</i>	0
Viruses	0
<i>Legionella</i>	0
Turbidity	non-turbid
HPC	none

Maximum Contaminant Levels (MCLs): Treatment Required

Specific enforceable MCL standards for these microbial contaminants are not established in this rule. Instead, treatment is required for surface water systems and groundwater systems under the direct

influence of surface water.

Water Treatment Requirements

Criteria to be met by systems seeking to avoid filtration

Although all systems are required to filter their water, unfiltered systems may avoid this requirement as long as they meet certain source water quality and system operation criteria. These criteria are given in Table 2. The water supply source must not exceed bacterial and other standards before the water is treated. The effectiveness of disinfection will be demonstrated in part by the amount of disinfectant in treated water and the length of time it is in contact with the water before reaching the first customer.

Table 2. Unfiltered System Criteria	
Criterion	Standard
Source water quality	
Coliforms	acceptable
Turbidity	<5 NTU
Disinfection	
<i>Giardia</i>	99.9% effective
Viruses	99.99% effective
Residual	0.2 mg/l at entry
Coliform Sampling	
25-501 persons served	1/week
501-3300	2/week
3301-10,000	3/week
10,001-25,000	4/week
More than 25,000	5/week

The water system must also operate in a way which minimizes the risk that the supply will be susceptible to microbiological contamination:

- ! System must maintain a watershed control program.
- ! System must have no more than 2 monthly total coliform MCL violations in any consecutive 12 month period.

- ! System must have no history of waterborne disease outbreaks.
- ! Systems serving 10,000 or more people must be in compliance with Total Trihalomethane requirements.

Criteria for filtered systems

Systems which filter their water must ensure that the overall filtration and disinfection process they use is performing effectively as demonstrated by turbidity and disinfection criteria. These criteria are given in Table 3. As with unfiltered systems, effectiveness will be demonstrated in part by the amount of disinfectant and the length of time it is in contact with the water before reaching the first customer.

Table 3. Filtered System Criterion	
System Criteria	Standard
Turbidity	<5 NTU at all times <0.5 NTU in 95% of all samples
Disinfection	
<i>Giardia</i>	99.9% effective
Viruses	99.99% effective
Residual	0.2 mg/l at entry

Compliance

Systems were given time to comply with the water quality standards and treatment requirements of this rule. Specific dates are given in Table 4.

Table 4. Compliance Dates		
SystemType	Requirement	Date
SW-UF	Begin monitoring	12/31/90
SW-UF	Meet all criteria to avoid filtration	12/31/91
SW-UF	Install filtration if required to filter	6/29/93
SW-F	Performance and monitoring	6/29/93

GW-UDI	State must notify system that it is UDI	6/29/94
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Surface water (SW) systems

- ! Unfiltered systems had to meet monitoring requirements within 18 months after the rule became effective.
- ! Unfiltered systems had to meet criteria to avoid filtration within 30 months after the rule became effective.
- ! Beginning 30 months after the rule became effective, unfiltered systems which failed to meet any criteria to avoid filtration were required to install filtration within 18 months of such failure.
- ! Filtered systems had to meet monitoring and treatment performance requirements beginning 48 months after the rule became effective.

Groundwater systems under direct influence of surface water (GWUDI)

States had to determine which Public Water Systems are under direct influence of surface water within 5 years of promulgating the rule.

Variances and Exemptions

Filtration

- ! Variances are not allowed since systems may avoid filtration by meeting the criteria given above.
- ! Exemptions are allowed under some conditions as long as an unreasonable risk to health does not exist.

Disinfection

Because of the acute and serious health effects associated with poor disinfection of surface waters

- ! Surface water systems must disinfect (no variances or exemptions).
- ! Exemptions allowed only for the level of disinfection required.

For More Information

Call the Safe Drinking Water Hotline at 1-800-426-4791